

ARCADIS
10 South Riverside, Suite 1900
Chicago
Illinois 60606
Tel 312.575.3700
Fax 312.775.9322
www.arcadis-us.com

Mr. Sam Borries
On-Scene Coordinator
USEPA Region 5
77 West Jackson Boulevard (SE-5J)
Chicago, IL 60604-3590

Subject:

Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Plainwell No. 2 Dam Area Time-Critical Removal Action
Monthly Report (August 2010)

Dear Sam:

Attached is the 14th monthly progress report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Plainwell No. 2 Dam Area Time-Critical Removal Action (TCRA). This progress report is submitted in accordance with Paragraph 19a of the June 2009 Administrative Settlement Agreement and Order on Consent (AOC) for Removal Action (Docket No. V-W-09-C-925). On August 5, 2009, the United States Environmental Protection Agency (USEPA) determined that future updates on the Former Plainwell Impoundment TCRA project will be included in this monthly report. In accordance with the August 6, 2009 direction of the USEPA, monthly reports will only be submitted electronically.

If you have any questions, please do not hesitate to contact me.

Sincerely,

ARCADIS



Stephen Garbaciak Jr., P.E.
Vice President

Copies:

Leslie Kirby-Miles, USEPA
Richard Karl, USEPA
James Saric, USEPA
Paul Bucholtz, MDNRE
Jeff Keiser, CH2M HILL
Kathy Huibregtse, RMT Inc.

Richard Gay, Weyerhaeuser Company
Martin Lebo, Ph. D., Weyerhaeuser Company
J. Michael Davis, Esq., Georgia-Pacific LLC
Paul Montney, P.E., Georgia-Pacific LLC
Garry Griffith, P.E., Georgia-Pacific LLC
Michael Erickson, P.E., ARCADIS

SEDIMENTS

Date:

September 15, 2010

Contact:

Steve Garbaciak

Phone:

312.575.3750

Email:

steve.garbaciak@
arcadis-us.com

Our ref:

B0064536.0000.00014

**MONTHLY REPORT FOR THE ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
PLAINWELL NO. 2 DAM AREA TIME-CRITICAL REMOVAL ACTION**

REPORT #14, AUGUST 2010

**PREPARED BY ARCADIS
SEPTEMBER 15, 2010
ON BEHALF OF GEORGIA-PACIFIC LLC**

SUBMITTED TO

**SAM BORRIES, ON-SCENE COORDINATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**Monthly Report for the Allied Paper, Inc./Portage Creek/
Kalamazoo River Superfund Site
Plainwell No. 2 Dam Area TCRA**

REPORT #14, SEPTEMBER 2010

Significant Developments and Activities During the Period

- On August 2, 7, 11, 12, 17, 20, 26, and 30 ARCADIS submitted to Weston (United States Environmental Protection Agency [USEPA] subcontractor) copies of turbidity monitoring logs, analytical data, waste manifests and/or chains of custody.
- On August 9, ARCADIS submitted the 28th *Weekly Construction Update for the Plainwell No. 2 Dam Area TCRA* to USEPA and the Michigan Department of Natural Resources and Environment (MDNRE).
- On August 11 and 21, Weston submitted copies of split sample analytical data to ARCADIS.
- On August 12, ARCADIS submitted to the Lake Allegan/Kalamazoo River Watershed Phosphorus Total Maximum Daily Loads (TMDL) Point Source and Implementation Committee 2009 phosphorus discharge data for the water treatment facility. The data was submitted in accordance with Part I, Section A, Paragraph j of Substantive Requirements Document (SRD) MIU990028.
- On August 16, ARCADIS submitted to USEPA the 13th *Monthly Report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Plainwell No. 2 Dam Area TCRA* for July 2010.
- On August 16 USEPA cancelled a scheduled August 18 tour of the site with the USEPA Region 5 Administrator.
- On August 18, ARCADIS and Georgia-Pacific LLC (Georgia-Pacific) hosted the monthly Stakeholder's Meeting. Representatives from MDNRE and USEPA attended the meeting. Sam Borries of USEPA participated via telephone.
- On August 18, ARCADIS submitted the 29th *Weekly Construction Update for the Plainwell No. 2 Dam Area TCRA* to USEPA and MDNRE.
- On August 19, ARCADIS attended a meeting for the Lake Allegan/Kalamazoo River Watershed Phosphorus TMDL Point Source and Implementation Committee in Kalamazoo.
- On August 20, ARCADIS submitted to USEPA Health and Safety Plan (HASP) *Addendum 7 – Potential Contact with Harmful Algal Blooms*.
- On August 25, ARCADIS submitted the 30th *Weekly Construction Update for the Plainwell No. 2 Dam Area TCRA* to USEPA and MDNRE.
- On August 31, ARCADIS and MDNRE discussed water sampling results in accordance with SRD MIU9900028 for the water treatment system.

**Monthly Report for the Allied Paper, Inc./Portage Creek/
Kalamazoo River Superfund Site
Plainwell No. 2 Dam Area TCRA**

REPORT #14, SEPTEMBER 2010

Data Collected and Field Activities Conducted During the Period

- No work activities were performed on August 1.
- During the week of August 2, ARCADIS continued excavation activities in Removal Areas 4B, 5B, and the oxbow; removed resuspension controls in Removal Area 3B; installed resuspension controls at the mouth of the oxbow; continued restoration activities in Removal Areas 3B and 4B, including installation of geotextile fabric, river run rock, coir log, erosion control blanket, topsoil, and seed; and continued transferring water from Staging Area 2 to Staging Area 1 for treatment and discharge. Processed material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal.

Eight confirmation samples (TS20402 through TS20409) were collected from Removal Area 4B, Removal Area 5B, or the oxbow and submitted to TestAmerica Laboratories, Inc. (TAL) or KAR Laboratories, Inc. (KAR) for polychlorinated biphenyls (PCB) analysis. USEPA collected a split sample of TS20404 (PD2-080510-13-SD/TS20404). Two surface water samples (TS30173 and TS30174) were collected from the downstream and upstream, respectively, turbidity monitoring locations near Removal Area 5B. A rinse blank (TS30175) was also collected. The surface water samples and rinse blank were submitted to TAL for PCB analysis. One set of water samples (W_SA1_X_009) was collected from the water treatment system located at Staging Area 1 and submitted to TAL for PCB, total phosphorus, and/or total suspended solids (TSS) analysis. Each set of water samples consists of one influent (e.g., W_SA1_In_009), two mid-fluent (e.g., W_SA1_RM_009 and W_SA1_LM_009), and two effluent samples (e.g., W_SA1_RE_009 and W_SA1_LE_009). Table A summarizes the samples collected.

- During the week of August 9, ARCADIS continued excavation activities in Removal Area 5B and the oxbow; removed resuspension controls in Removal Area 3B; began removal of the first finger road in the oxbow; installed sheet pile to create removal cells in the oxbow; continued restoration activities in Removal Areas 3B and 4B; and continued transferring water from Staging Area 2 to Staging Area 1 for treatment and discharge. Processed material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal.

Fourteen confirmation samples (TS20410 through TS20419 and TS20421 through TS20424) and one duplicate sample (TS20420) were collected from Removal Area 5B or the oxbow and submitted to TAL or KAR for PCB analysis. USEPA collected a split sample of TS20419 (PD2-081310-14-SD/TS20419). Two surface water samples (TS30176 and TS30177) were collected from the downstream and upstream, respectively, turbidity monitoring locations near Removal Area 5B. A rinse blank (TS30178) was also collected. The surface water samples and rinse blank were submitted to TAL for PCB analysis. Table A summarizes the samples collected.

**Monthly Report for the Allied Paper, Inc./Portage Creek/
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- During the week of August 16, ARCADIS continued excavation activities in Removal Area 5B and the oxbow; removed resuspension controls in Removal Areas 4B and 5B; continued installation of sheet pile to create removal cells in the oxbow; continued restoration activities in Removal Areas 4B and 5B; and continued transferring water from Staging Area 2 to Staging Area 1 for treatment and discharge. Processed material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal.

Eight confirmation samples (TS20425 through TS20432) were collected from Removal Area 5B or the oxbow and submitted to TAL or KAR for PCB analysis. USEPA collected a split sample of TS20425 (PD2-081710-15-SD/TS20425). Two surface water samples (TS30179 and TS30180) were collected from the downstream and upstream, respectively, turbidity monitoring locations near Removal Area 5B. A rinse blank (TS30181) was also collected. The surface water samples and rinse blank were submitted to TAL for PCB analysis. One set of water samples (W_SA1_X_010) was collected from the water treatment system located at Staging Area 1 and submitted to TAL for PCB and/or TSS analysis. Each set of water samples consists of one influent, two mid-fluent, and two effluent samples. Table A summarizes the samples collected.

- During the week of August 23, ARCADIS continued excavation activities in Removal Area 5B and the oxbow; continued installation of resuspension controls in Removal Area 6; began excavation activities in Removal Area 6; removed resuspension controls in Removal Areas 4B and 5B; continued installation of sheet pile to create removal cells in the oxbow; continued removal of aggregate material from the finger roads of the oxbow; began installation of the three-sided structure used as a platform to excavate the mouth of the oxbow; continued restoration activities in Removal Areas 4B and 5B; and continued transferring water from Staging Area 2 to Staging Area 1 for treatment and discharge. Processed material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal.

Twenty-two confirmation samples (TS20433 through TS20441 and TS20443 through TS20455) and one duplicate sample (TS20442) were collected from Removal Area 5B or the oxbow and submitted to TAL or KAR for PCB analysis. USEPA collected split samples of TS20436 (PD2-082610-16-SD/TS20436) and TS20445 (PD2-082610-17-SD/TS20445). Two surface water samples (TS30182 and TS30183) were collected from the downstream and upstream, respectively, turbidity monitoring locations near Removal Area 5B. A rinse blank (TS30184) was also collected. The surface water samples and rinse blank were submitted to TAL for PCB analysis. One set of water samples (W_SA1_X_011) was collected from the water treatment system located at Staging Area 1 and submitted to TAL for PCB and/or TSS analysis. Each set of water samples consists of one influent, two mid-fluent, and two effluent samples. A duplicate effluent sample (W_SA1_DUP_005) was also collected. Table A summarizes the samples collected.

**Monthly Report for the Allied Paper, Inc./Portage Creek/
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- During the week of August 30, ARCADIS continued excavation activities in Removal Areas 5B, 6, and the oxbow area; continued removal of aggregate material from the finger roads of the oxbow; continued installation of the three-sided structure used as a platform to excavate the mouth of the oxbow; and continued transferring water from Staging Area 2 to Staging Area 1 for treatment and discharge. Processed material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal.

Ten confirmation samples (TS20456 through TS20460 and TS20462 through TS20466) and one duplicate sample (TS20461) were collected from Removal Area 6 and submitted to TAL for PCB analysis. USEPA collected split sample of TS20458 (PD2-083110-18-SD/TS20458). Table A summarizes the samples collected.

- As of August 31, approximately 12,000 cubic yards of material have been removed from Removal Areas 1, 2, 3A, 3B, 4A, 4B, 5A, 5B, 6, Island 1, Island 2, and the oxbow area.

Laboratory Data Received During the Period

- No analytical data were received on August 1.
- During the week of August 2, ARCADIS received analytical data for confirmation sample TS20402 and water treatment sample set W_SA1_X_008 (collected in July).
- During the week of August 9, ARCADIS received analytical data for confirmation samples TS20403 through TS204012, TS204017, and TS204018; USEPA split samples PD2-071610-11-SD/TS20385, PD2-072210-12-SD/TS20397 (both collected in July), and PD2-080510-13-SD/TS20404; surface water samples TS30163 through TS30169 (collected in July); water treatment sample set W_SA1_X_009, and USEPA split sample PD2-072810-02-WT/W_SA1_RE_007 (collected in July).
- During the week of August 16, ARCADIS received analytical data for confirmation samples TS20413 through TS20416, TS20419 through TS20426, and TS20429 through TS20432; USEPA split samples PD2-081310-14-SD/TS20419 and PD2-081710-15-SD/TS20425; and surface water samples TS30170 through TS30172 (collected in July).
- During the week of August 23, ARCADIS received analytical data for confirmation samples TS20427, TS20428, and TS20433 through TS20435; surface water samples TS30173 through TS30178; and water treatment sample set W_SA1_X_010.
- During the week of August 30, ARCADIS received analytical data for confirmation samples TS20436 through TS20455 and water treatment sample set W_SA1_X_011.

**Monthly Report for the Allied Paper, Inc./Portage Creek/
Kalamazoo River Superfund Site
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- ARCADIS is awaiting analytical data for confirmation samples TS20456 through TS20466 and USEPA split samples PD2-082610-16-SD/TS20436, PD2-082610-17-SD/TS20445, and PD2-082610-18-SD/TS20458; and surface water samples TS30179 through TS30184. The USEPA representative has verbally confirmed that the analytical results for split samples PD2-082610-16-SD/TS20436 and PD2-082610-17-SD/TS20445 were below the PCB action limit of 5 milligrams per kilogram (mg/kg).

Issues Encountered and Actions Taken

- The PCB concentration in sample TS20394 (28 mg/kg) collected from Removal Area 4B, Grid 4 on July 20 exceeded the performance standard of 5 mg/kg. An additional six inches of material was excavated from the area on August 3, and the area was re-sampled (TS20402). The PCB concentration in sample TS20402 (1.5 mg/kg) did not exceed the performance standard. No excavation additional is warranted and the area will be backfilled to design grade.
- The PCB concentration in sample TS20408 (1.5 mg/kg) collected from Oxbow Grid 2 on August 6 exceeded the performance standard of 1 mg/kg. PCB performance standard for oxbow confirmation samples is 1 mg/kg for initial samples and 5 mg/kg for samples collected after additional excavation. See Section 5.5 of the Design Report for additional information. An additional six inches of material was excavated from the area on August 9, and the area was re-sampled (TS20410). The PCB concentration in sample TS20410 (0.65 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted.
- The PCB concentration in sample TS20411 (2.3 mg/kg) collected from Oxbow Grid 5 on August 9 exceeded the performance standard of 1 mg/kg. An additional six inches of material was excavated from the area on August 11, and the area was re-sampled (TS20417). The PCB concentration in sample TS20417 (1.8 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted.
- The PCB concentration in sample TS20412 (3.1 mg/kg) collected from Oxbow Grid 6 on August 9 exceeded the performance standard of 1 mg/kg. An additional six inches of material was excavated from the area on August 11, and the area was re-sampled (TS20418). The PCB concentration in sample TS20418 (0.71 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted.
- The PCB concentration in sample TS20423 (2.1 mg/kg) collected from Oxbow Grid 9 on August 14 exceeded the performance standard of 1 mg/kg. An additional six inches of material was excavated from the area on August 17, and the area was re-sampled (TS20425). The PCB concentration in sample TS20425 (2.6 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted.

**Monthly Report for the Allied Paper, Inc./Portage Creek/
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- The PCB concentration in sample TS20424 (1.4 mg/kg) collected from Oxbow Grid 10 on August 14 exceeded the performance standard of 1 mg/kg. An additional six inches of material was excavated from the area on August 17, and the area was re-sampled (TS20426). The PCB concentration in sample TS20426 (2.0 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted.
- The PCB concentration in sample TS20429 (4.2 mg/kg) collected from Oxbow Grid 13 on August 19 exceeded the performance standard of 1 mg/kg. An additional six inches of material was excavated from the area on August 24, and the area was re-sampled (TS20433). The PCB concentration in sample TS20433 (7.2 mg/kg) exceeded the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. An additional six inches of material was excavated from the area on August 26, and the area was re-sampled (TS20444). The PCB concentration in sample TS20444 (0.44 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted.
- The PCB concentration in sample TS20430 (7.5 mg/kg) collected from Oxbow Grid 14 on August 19 exceeded the performance standard of 1 mg/kg. An additional six inches of material was excavated from the area on August 24, and the area was re-sampled (TS20434). The PCB concentration in sample TS20434 (7.8 mg/kg) exceeded the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. An additional six inches of material was excavated from the area on August 26, and the area was re-sampled (TS20445). The PCB concentration in sample TS20445 (2.2 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted.
- The PCB concentration in sample TS20432 (3.4 mg/kg) collected from Oxbow Grid 16 on August 19 exceeded the performance standard of 1 mg/kg. An additional six inches of material was excavated from the area on August 24, and the area was re-sampled (TS20435). The PCB concentration in sample TS20435 (1.6 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted.
- The PCB concentration in sample TS20453 (1.6 mg/kg) collected from Oxbow Grid 17 on August 27 exceeded the performance standard of 1 mg/kg. An additional six inches is scheduled to be removed and the grid will be re-sampled during the week of September 1.
- The PCB concentration in sample TS20446 (18 mg/kg) collected from Oxbow Grid 18 on August 26 exceeded the performance standard of 1 mg/kg. An additional six inches of material was excavated from the area on August 28, and the area was re-sampled (TS20454). The PCB concentration in sample TS20454 (2.8 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted.

**Monthly Report for the Allied Paper, Inc./Portage Creek/
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- The PCB concentration in sample TS20413 (7.6 mg/kg) collected from Removal Area 5B, Grid 8 on August 11 exceeded the performance standard of 5 mg/kg. An additional six inches of material was excavated from the area on August 18, and the area was re-sampled (TS20427). The PCB concentration in sample TS20427 (8.4 mg/kg) exceeded the performance standard of 5 mg/kg. An additional six inches of material was excavated from the area on August 27, and the area was re-sampled (TS20451). The PCB concentration in sample TS20451 (2.1 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted, and the area will be backfilled to design grade.
- The PCB concentration in sample TS20415 (17 mg/kg) collected from Removal Area 5B, Grid 9 on August 11 exceeded the performance standard of 5 mg/kg. An additional six inches of material was excavated from the area on August 18, and the area was re-sampled (TS20428). The PCB concentration in sample TS20428 (5.5 mg/kg) exceeded the performance standard of 5 mg/kg. An additional six inches of material was excavated from the area on August 27, and the area was re-sampled (TS20452). The PCB concentration in sample TS20452 (0.82 mg/kg) did not exceed the performance standard of 5 mg/kg established for additional sediment excavation in the oxbow area. No additional excavation is warranted, and the area will be backfilled to design grade.
- The PCB concentration in sample TS20441 (8.4 mg/kg) and duplicate TS20442 (8.7 mg/kg) collected from Removal Area 5B, Grid 17A on August 26 exceeded the performance standard of 5 mg/kg. An additional six inches is scheduled to be removed and the grid will be re-sampled during the week of September 1.
- A PCB concentration of 0.033 micrograms per liter (µg/L) J was estimated in mid-fluent sample W_SA1_LM_011. The 'J' qualifier means that the constituent was detected at a concentration below the reporting limit but above the method detection limit. According to SRD MIU99000028, "...rotation and replacement of the carbon tanks shall occur immediately upon detection of total PCBs at the intermediate stage." On August 31, ARCADIS contacted MDNRE regarding the mid-fluent concentration. MDNRE stated that since the mid-fluent concentration was below the project quantification limit of 0.2 µg/L, the carbon tanks did not need to be replaced or rotated.

Developments Anticipated During the Next Reporting Period

- During the week of September 1, ARCADIS is scheduled to continue excavation activities in Removal Areas 5B, 6, and the oxbow; continue restoration activities in Removal Areas 4B and 5B; continue treating and discharging water at Staging Area 1; complete installation of the 3-sided structure in the mouth of the oxbow; continue removal of aggregate material from the finger roads in the oxbow; and continue loading and transporting processed material to the appropriate landfill.

**Monthly Report for the Allied Paper, Inc./Portage Creek/
Kalamazoo River Superfund Site
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REPORT #14, SEPTEMBER 2010

- During the week of September 6, ARCADIS is scheduled to continue excavation activities in Removal Area 5B and the oxbow; complete removal activities in Removal Area 6; continue restoration activities in Removal Area 5B; begin restoration activities in Removal Area 6; continue treating and discharging water at Staging Area 1; complete removal of aggregate material from the finger roads in the oxbow; begin removal of sheet pile from the oxbow; and continue loading and transporting processed material to the appropriate landfill.
- During the week of September 13, ARCADIS is scheduled to host the monthly Stakeholder's Meeting; continue excavation activities in Removal Area 5B; complete removal activities in the oxbow; continue restoration activities in Removal Areas 5B and 6; continue treating and discharging water at Staging Area 1; complete removal of sheet pile from the oxbow; begin removal of the 3-sided structure from the oxbow; and continue loading and transporting processed material to the appropriate landfill.
- During the week of September 20, ARCADIS is scheduled continue excavation activities in Removal Area 5B; continue restoration activities in Removal Areas 5B and 6; continue treating and discharging water at Staging Area 1; and continue loading and transporting processed material to the appropriate landfill.
- During the week of September 27, ARCADIS is scheduled complete excavation activities in Removal Area 5B; continue restoration activities in Removal Area 5B; continue treating and discharging water at Staging Area 1; and continue loading and transporting processed material to the appropriate landfill.
- In September, ARCADIS will continue submitting copies of analytical data, turbidity monitoring logs, waste manifests and chains of custody from Plainwell No. 2 Dam Area TCRA sampling activities to USEPA.
- In September, ARCADIS will continue submitting the weekly construction updates to USEPA regarding the Plainwell No. 2 Dam Area TCRA.

Updates to the Former Plainwell Impoundment TCRA

- None

Developments Anticipated During the Next Reporting Period from the Former Plainwell Impoundment TCRA

- In September, ARCADIS is scheduled to finalize and submit to USEPA the bank inspection report, as described in Section 5.6 of the *Final Former Plainwell Impoundment TCRA Design Report*.

Georgia-Pacific LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Plainwell No. 2 Dam Area TCRA
Monthly Report #14, August 2010

Table A — Summary of Samples Collected and Data Received in August 2010

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Performance Standard	Response Action / Notes
Confirmation Samples									
PD2-071610-11-SD/TS20385	07.16.10	08.11.10	1007210	TriMatrix Laboratories	RA 3B, Grid 2	PCBs	0.095 mg/kg J	5 mg/kg	None
PD2-072210-12-SD/TS20397	07.22.10	08.11.10	1007332	TriMatrix Laboratories	RA 4B, Grid 7	PCBs	0.41 mg/kg	5 mg/kg	None
TS20402	08.03.10	08.05.10	KAL569	TAL	RA 4B, Grid 4	PCBs	1.5 mg/kg	5 mg/kg	resample of TS20394, collected in July
TS20403	08.05.10	08.09.10	KAL571	TAL	RA 5B, Grid 1	PCBs	0.17 mg/kg	5 mg/kg	None
TS20404 ^a					RA 5B, Grid 2	PCBs	0.11 mg/kg J	5 mg/kg	None
PD2-080510-13-SD/TS20404	08.05.10	08.11.10	1008074	TriMatrix Laboratories	RA 5B, Grid 2	PCBs	0.080 mg/kg J	5 mg/kg	None
TS20405	08.05.10	08.09.10	KAL571	TAL	RA 5B, Grid 3	PCBs	0.49 mg/kg	5 mg/kg	None
TS20406					RA 5B, Grid 4	PCBs	0.516 mg/kg	5 mg/kg	None
TS20407					RA 5B, Grid 5	PCBs	4.2 mg/kg	5 mg/kg	None
TS20408	08.06.10	08.09.10	103176	KAR	Oxbow Grid 2	PCBs	1.5 mg/kg	1 mg/kg	additional excavation and sampling warranted (TS20410)
TS20409					Oxbow Grid 1	PCBs	0.59 mg/kg	1 mg/kg	None
TS20410	08.09.10	08.10.10	103229	KAR	Oxbow Grid 2	PCBs	0.65 mg/kg	5 mg/kg	None
TS20411					Oxbow Grid 5	PCBs	2.3 mg/kg	1 mg/kg	additional excavation and sampling warranted (TS20417)
TS20412					Oxbow Grid 6	PCBs	3.1 mg/kg	1 mg/kg	additional excavation and sampling warranted (TS20418)
TS20413	08.11.10	08.17.10	KAL573	TAL	RA 5B, Grid 8	PCBs	7.6 mg/kg	5 mg/kg	additional excavation and sampling warranted (TS20427)
TS20414					RA 5B, Grid 7	PCBs	4.4 mg/kg	5 mg/kg	None
TS20415					RA 5B, Grid 9	PCBs	17 mg/kg	5 mg/kg	additional excavation and sampling warranted (TS20428)
TS20416					RA 5B, Grid 6	PCBs	0.23 mg/kg	5 mg/kg	None

see notes, page 7

Georgia-Pacific LLC
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Plainwell No. 2 Dam Area TCRA
Monthly Report #14, August 2010

Table A — Summary of Samples Collected and Data Received in August 2010

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Performance Standard	Response Action / Notes
Confirmation Samples (cont'd)									
TS20417	08.11.10	08.13.10	103278	KAR	Oxbow Grid 5	PCBs	1.8 mg/kg	5 mg/kg	None
TS20418					Oxbow Grid 6	PCBs	0.71 mg/kg	5 mg/kg	None
TS20419 ^a [TS20420]	08.13.10	08.18.10	KAL575	TAL	RA 5B, Grid 21	PCBs [PCBs]	0.50 mg/kg U [0.53 mg/kg]	5 mg/kg [5 mg/kg]	None [None]
PD2-081310-14-SD/TS20419	08.13.10	08.21.10	1008191	TriMatrix Laboratories	RA 5B, Grid 21	PCBs	0.028 mg/kg J	5 mg/kg	None
TS20421	08.13.10	08.18.10	KAL575	TAL	RA 5B, Grid 20A	PCBs	0.22 mg/kg	5 mg/kg	None
TS20422					RA 5B, Grid 19A	PCBs	1.1 mg/kg	5 mg/kg	None
TS20423	08.14.10	08.17.10	103331	KAR	Oxbow Grid 9	PCBs	2.1 mg/kg	1 mg/kg	additional excavation and sampling warranted (TS20425)
TS20424					Oxbow Grid 10	PCBs	1.4 mg/kg	1 mg/kg	additional excavation and sampling warranted (TS20426)
TS20425 ^a	08.17.10	08.18.10	103370	KAR	Oxbow Grid 9	PCBs	2.6 mg/kg	5 mg/kg	None
PD2-081710-15-SD/TS20425	08.17.10	08.21.10	1008245	TriMatrix Laboratories	Oxbow Grid 9	PCBs	0.85 mg/kg	5 mg/kg	None
TS20426	08.17.10	08.18.10	103370	KAR	Oxbow Grid 10	PCBs	2.0 mg/kg	5 mg/kg	None
TS20427	08.18.10	08.24.10	KAL577	TAL	RA 5B, Grid 8	PCBs	8.4 mg/kg	5 mg/kg	additional excavation and sampling warranted (TS20451)
TS20428					RA 5B, Grid 9	PCBs	5.5 mg/kg	5 mg/kg	additional excavation and sampling warranted (TS20452)
TS20429	08.19.10	08.20.10	103416	KAR	Oxbow Grid 13	PCBs	4.2 mg/kg	1 mg/kg	additional excavation and sampling warranted (TS20433)
TS20430					Oxbow Grid 14	PCBs	7.5 mg/kg	1 mg/kg	additional excavation and sampling warranted (TS20434)
TS20431					Oxbow Grid 15	PCBs	0.83 mg/kg	1 mg/kg	None
TS20432					Oxbow Grid 16	PCBs	3.4 mg/kg	1 mg/kg	additional excavation and sampling warranted (TS20435)
TS20433	08.24.10	08.24.10	103450	KAR	Oxbow Grid 13	PCBs	7.2 mg/kg	5 mg/kg	additional excavation and sampling warranted (TS20444)
TS20434					Oxbow Grid 14	PCBs	7.8 mg/kg	5 mg/kg	additional excavation and sampling warranted (TS20445)
TS20435					Oxbow Grid 16	PCBs	1.6 mg/kg	5 mg/kg	None

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Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Performance Standard	Response Action / Notes
Confirmation Samples (cont'd)									
TS20436 ^a	08.26.10	08.30.10	KAL581	TAL	RA 5B, Grid 15	PCBs	0.83 mg/kg	5 mg/kg	None
<i>PD2-082610-16-SD/TS20436^b</i>	<i>08.26.10</i>	<i>NR</i>	<i>NR</i>	<i>TriMatrix Laboratories</i>	<i>RA 5B, Grid 15</i>	<i>PCBs</i>	<i>-</i>	<i>5 mg/kg</i>	<i>-</i>
TS20437	08.26.10	08.30.10	KAL581	TAL	RA 5B, Grid 16	PCBs	1.9 mg/kg	5 mg/kg	None
TS20438					RA 5B, Grid 20B	PCBs	0.90 mg/kg	5 mg/kg	None
TS20439					RA 5B, Grid 18A	PCBs	0.77 mg/kg	5 mg/kg	None
TS20440					RA 5B, Grid 22	PCBs	0.48 mg/kg	5 mg/kg	None
TS20441 [TS20442]					RA 5B, Grid 17A	PCBs [PCBs]	8.4 mg/kg [8.7 mg/kg]	5 mg/kg [5 mg/kg]	additional excavation and sampling warranted
TS20443					RA 5B, Grid 19B	PCBs	0.33 mg/kg J	5 mg/kg	None
TS20444	08.26.10	08.30.10	103533	KAR	Oxbow Grid 13	PCBs	0.44 mg/kg	5 mg/kg	None
TS20445 ^a					Oxbow Grid 14	PCBs	2.2 mg/kg	5 mg/kg	None
<i>PD2-082610-17-SD/TS20445^b</i>	<i>08.26.10</i>	<i>NR</i>	<i>NR</i>	<i>TriMatrix Laboratories</i>	<i>Oxbow Grid 14</i>	<i>PCBs</i>	<i>-</i>	<i>5 mg/kg</i>	<i>-</i>
TS20446	08.26.10	08.30.10	103533	KAR	Oxbow Grid 18	PCBs	18.0 mg/kg	1 mg/kg	additional excavation and sampling warranted (TS20454)
TS20447					Oxbow Grid 19	PCBs	0.64 mg/kg	1 mg/kg	None
TS20448					Oxbow Grid 20	PCBs	0.56 mg/kg	1 mg/kg	None
TS20449					Oxbow Grid 21	PCBs	0.35 mg/kg	1 mg/kg	None
TS20450					Oxbow Grid 22	PCBs	0.33 mg/kg U	1 mg/kg	None
TS20451	08.27.10	08.30.10	KAL583	TAL	RA 5B, Grid 8	PCBs	2.1 mg/kg	5 mg/kg	None
TS20452					RA 5B, Grid 9	PCBs	0.82 mg/kg	5 mg/kg	None
TS20453	08.27.10	08.30.10	103533	KAR	Oxbow Grid 17	PCBs	1.6 mg/kg	1 mg/kg	additional excavation and sampling warranted

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Confirmation Samples (cont'd)									
TS20454	08.28.10	08.30.10	103562	KAR	Oxbow Grid 18	PCBs	2.8 mg/kg	5 mg/kg	None
TS20455					Oxbow Grid 11	PCBs	0.33 mg/kg U	1 mg/kg	None
TS20456	08.31.10	NR	NR	TAL	RA 6, Grid 1	PCBs	-	5 mg/kg	-
TS20457					RA 6, Grid 2	PCBs	-	5 mg/kg	-
TS20458 ^a					RA 6, Grid 3	PCBs	-	5 mg/kg	-
<i>PD2-083110-18-SD/TS20458</i>	<i>08.31.10</i>	<i>NR</i>	<i>NR</i>	<i>TriMatrix Laboratories</i>	<i>RA 6, Grid 3</i>	<i>PCBs</i>	<i>-</i>	<i>5 mg/kg</i>	<i>-</i>
TS20459	08.31.10	NR	NR	TAL	RA 6, Grid 4	PCBs	-	5 mg/kg	-
TS20460					RA 6, Grid 5	PCBs	-	5 mg/kg	-
[TS20461]						[PCBs]	[-]	[5 mg/kg]	[-]
TS20462					RA 6, Grid 6	PCBs	-	5 mg/kg	-
TS20463					RA 6, Grid 7	PCBs	-	5 mg/kg	-
TS20464					RA 6, Grid 8	PCBs	-	5 mg/kg	-
TS20465					RA 6, Grid 9	PCBs	-	5 mg/kg	-
TS20466					RA 6, Grid 10	PCBs	-	5 mg/kg	-
Surface Water Samples									
TS30163	07.15.10	08.11.10	KAL564	TAL	RA 3B; 300 feet downstream	PCBs	0.048 µg/L U	-	None
[TS30164]						[PCBs]	[0.048 µg/L U]	[-]	[None]
TS30165					RA 3B; 200 feet upstream	PCBs	0.047 µg/L U	-	None
TS30166					Rinse Blank	PCBs	0.056 µg/L U	-	None

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Surface Water Samples (cont'd)									
TS30167	07.22.10	08.11.10	KAL567	TAL	RA 5B; 300 feet downstream	PCBs	0.049 µg/L U	-	None
TS30168					RA 5B; 200 feet upstream	PCBs	0.048 µg/L U	-	None
TS30169					Rinse Blank	PCBs	0.056 µg/L U	-	None
TS30170	07.29.10	08.20.10	KAL568	TAL	RA 5B; 300 feet downstream	PCBs	0.056 µg/L U	-	None
TS30171					RA 5B; 200 feet upstream	PCBs	0.051 µg/L U	-	None
TS30172					Rinse Blank	PCBs	0.055 µg/L U	-	None
TS30173	08.05.10	08.23.10	KAL572	TAL	RA 5B; 300 feet downstream	PCBs	0.049 µg/L U	-	None
TS30174					RA 5B; 200 feet upstream	PCBs	0.056 µg/L U	-	None
TS30175					Rinse Blank	PCBs	0.055 µg/L U	-	None
TS30176	08.12.10	08.25.10	KAL574	TAL	RA 5B; 300 feet downstream	PCBs	0.054 µg/L U	-	None
TS30177					RA 5B; 200 feet upstream	PCBs	0.062 µg/L U	-	None
TS30178					Rinse Blank	PCBs	0.048 µg/L U	-	None
TS30179	08.19.10	NR	NR	TAL	RA 5B; 300 feet downstream	PCBs	-	-	-
TS30180					RA 5B; 200 feet upstream	PCBs	-	-	-
TS30181					Rinse Blank	PCBs	-	-	-
TS30182	08.26.10	NR	NR	TAL	RA 5B; 300 feet downstream	PCBs	-	-	-
TS30183					RA 5B; 200 feet upstream	PCBs	-	-	-
TS30184					Rinse Blank	PCBs	-	-	-

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Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Performance Standard	Response Action / Notes
Water Treatment Samples									
PD2-072810-02-WT/W_SA1_RE_007	07.28.10	08.11.10	1007423	TriMatrix Laboratories	Right side Effluent; SA 1 Water Treatment	PCBs	0.2 µg/L U	Monthly Average of 2.6 x 10-5 µg/L	None
W_SA1_In_008	07.30.10	08.04.10	103040	KAR	Influent; SA 1 Water Treatment	PCBs	0.1 µg/L U	No Action Limit	None
W_SA1_RM_008					Right side Mid-fluent; SA 1 Water Treatment	PCBs	0.1 µg/L U	No Action Limit	None
W_SA1_RE_008					Right side Effluent; SA 1 Water Treatment	PCBs and TSS	0.1 µg/L U	Monthly Average of 2.6 x 10-5 µg/L	None: TSS = 4 mg/L U, Action Limit = 45 mg/L
W_SA1_LM_008					Left side Mid-fluent; SA 1 Water Treatment	PCBs	0.1 µg/L U	No Action Limit	None
W_SA1_LE_008					Left side Effluent; SA 1 Water Treatment	PCBs and TSS	0.1 µg/L U	Monthly Average of 2.6 x 10-5 µg/L	None: TSS = 4 mg/L U, Action Limit = 45 mg/L
W_SA1_In_009	08.04.10	08.11.10	KAL571	TAL	Influent; SA 1 Water Treatment	PCBs	0.1 µg/L U	No Action Limit	None
W_SA1_RM_009					Right side Mid-fluent; SA 1 Water Treatment	PCBs	0.1 µg/L U	No Action Limit	None
W_SA1_RE_009					Right side Effluent; SA 1 Water Treatment	PCBs, TP, and TSS	0.1 µg/L U	Monthly Average of 2.6 x 10-5 µg/L	None: TSS = 1.3 mg/L, Action Limit = 45 mg/L; TP=0.01 mg/L U, No Action Limit
W_SA1_LM_009					Left side Mid-fluent; SA 1 Water Treatment	PCBs	0.096 µg/L U	No Action Limit	None
W_SA1_LE_009					Left side Effluent; SA 1 Water Treatment	PCBs, TP, and TSS	0.1 µg/L U	Monthly Average of 2.6 x 10-5 µg/L	None: TSS = 1.0 mg/L, Action Limit = 45 mg/L; TP=0.01 mg/L U, No Action Limit
W_SA1_In_010	08.17.10	08.23.10	KAL576	TAL	Influent; SA 1 Water Treatment	PCBs	0.05 µg/L U	No Action Limit	None
W_SA1_RM_010					Right side Mid-fluent; SA 1 Water Treatment	PCBs	0.049 µg/L U	No Action Limit	None
W_SA1_RE_010					Right side Effluent; SA 1 Water Treatment	PCBs and TSS	0.048 µg/L U	Monthly Average of 2.6 x 10-5 µg/L	None: TSS = 1.6 mg/L, Action Limit = 45 mg/L
W_SA1_LM_010					Left side Mid-fluent; SA 1 Water Treatment	PCBs	0.048 µg/L U	No Action Limit	None
W_SA1_LE_010					Left side Effluent; SA 1 Water Treatment	PCBs and TSS	0.048 µg/L U	Monthly Average of 2.6 x 10-5 µg/L	None: TSS = 1.0 mg/L, Action Limit = 45 mg/L

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Water Treatment Samples (cont'd)									
W_SA1_In_011	08.25.10	08.30.10	KAL576	TAL	Influent; SA 1 Water Treatment	PCBs	0.324 µg/L	No Action Limit	None
W_SA1_RM_011					Right side Mid-fluent; SA 1 Water Treatment	PCBs	0.05 µg/L U	No Action Limit	None
W_SA1_RE_011					Right side Effluent; SA 1 Water Treatment	PCBs and TSS	0.049 µg/L U	Monthly Average of 2.6 x 10-5 µg/L	None: TSS = 7.5 mg/L, Action Limit = 45 mg/L
[W_SA1_DUP_005]						[PCBs and TSS]	[0.049 µg/L U]	[Monthly Average of 2.6 x 10-5 µg/L]	[None: TSS = 6.8 mg/L, Action Limit = 45 mg/L]
W_SA1_LM_011					Left side Mid-fluent; SA 1 Water Treatment	PCBs	0.033 µg/L J	No Action Limit	None
W_SA1_LE_011					Left side Effluent; SA 1 Water Treatment	PCBs and TSS	0.048 µg/L U	Monthly Average of 2.6 x 10-5 µg/L	None: TSS = 7.5 mg/L, Action Limit = 45 mg/L

Notes:

a - Split of the sample collected by USEPA.

b - Hard copy of analytical report not yet received, but USEPA representative has verbally confirmed that PCB concentration does not exceed action limit.

* Duplicate samples are shown in brackets.

* Analytical results have not been validated.

* USEPA split sample results shown in bold italics.

* PCB performance standard for oxbow confirmation samples is 1 mg/kg for initial samples and 5 mg/kg for samples collected after additional excavation. See Section 5.5 of the Design Report for additional information.

J - The compound was positively identified; however, the associated numerical value is an estimated concentration only because the compound was identified at a concentration below reporting limit but above the method detection limit.

KAR - KAR Laboratories, Inc.

mg/kg - milligrams per kilogram

mg/L - milligrams per liter.

NR - Not Received

PCBs - polychlorinated biphenyls

RA - Removal Area

SA - Staging Area

TAL - TestAmerica Laboratories, Inc.

TP - total phosphorus.

TSS - Total Suspended Solids

U - Compound analyzed but not detected at a concentration above the reporting limit

µg/L - micrograms per liter.

USEPA - United States Environmental Protection Agency